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VERTICAL INTEGRATION IN AGRICULTURE 1/

I. What is Meant by Vertical Integration

Vertical integration is the control by a single firm of two or more stages in the chain of production, processing, and distribution. This chain extends from the supply of production resources to the point at which the commodity reaches the consumer.

II. The Economic Area Within Which Integration Takes Place

The productive activities that are related to agriculture and the handling of agricultural products has been called the agribusiness sector. It is among this congeries of industries that integration takes place. Agribusiness accounts for about 40 percent of all consumer expenditures and 37 percent of the labor force. (Only about 10 percent of the United States labor force is employed on farms.)

III. Types of Integration or Control

- A. Integration between processes or production stages may be partial or complete. As a minimum it involves some business relationship between production stages that is closer than an open-market relationship.
- B. Integration may be effected in any of three ways:
 - 1. Ownership
 - 2. Cooperative relationships
 - 3. Bi-lateral contracts
- C. While there can be integration of two on-farm processes or production stages, the kind of integration now receiving attention involves farm and nonfarm firms.
- D. Integration can be farmer-led or business-dominated.

IV. Development of Vertical Integration

- A. Early stages of agriculture were almost completely integrated under direction of the farmer. In fact, his activities often extended beyond the agribusiness sphere.
- B. Technology and division of labor separated and differentiated production processes. On-farm activities were reduced in number and scope. The usual relationship between these processes was a competitive market relationship.

1/ Presented by O. J. Scoville and R. L. Mighell of the Farm Economics Research Division, ARS, USDA, to a joint Seminar of the Federal Extension Service and the Farmer Cooperative Service.

C. Factors that have encouraged integration.

1. Specialized markets, as with sugar-beet factories, canneries, broiler dressing plants, etc.
2. Opportunities for economics of scale in production or processing.
3. Quality control.
4. Assurance of supply or of a market.
5. Shifting or reduction of risk.

V. Present Extent of Integration

A. Full extent of integration is not known.

1. Has long existed to some extent in sugar beets, truck crops for canning and freezing, citrus, walnuts, tobacco, milk, and eggs for hatcheries among others.
2. Recent developments include extensive integration in the broiler industry and some integration in laying flocks, turkeys, hog fattening, and cattle feeding.

VI. Effects of Integration

A. Reduction of risk.

1. The producer shifts much of his price risk to another party who may be a feed dealer in the case of broilers, or a sugar factory in the case of beets.
2. Production risks also may be partially shifted. This is the case with broiler contracts that provide for minimum grower payments.
3. The total amount of risk to be carried in the whole agribusiness sector may be reduced. Price risks arising from fluctuations in volume are reduced, for example, because the lower prices of livestock resulting from increased volume are partially offset for the whole agribusiness sector by higher earnings on the increased volume of feed sold.
4. Price and production risks are more easily carried when shifted from individual producers because marketings are dispersed over time and production locations are distributed in space. Risks are averaged out.

B. Technological improvement.

1. Dealer-producer or processor-producer arrangements and relationships encourage adoption of improved technology. Improved breeds and varieties are rapidly introduced. The latest knowledge is used in formulating rations. Assistance in disease control is provided. Quality of product is improved.

C. Effects on scale and specialization.

1. Integration tends to increase scale of production and thereby improves labor and capital efficiency.
2. In some situations, farming becomes more specialized, in others there is greater diversification.

D. Availability of capital.

Integration under leadership of nonfarm businesses usually provides some assistance in financing. This makes it easier to become a producer.

VII. Problems Arising from Increased Integration of Production

- A. Control of decision making tends to be shifted from the farm to other business firms in many cases. Output may be less responsive to price to the grower than formerly. When the grower sector is depressed, the returns to the processor or supplier may not be affected to the same extent.
- B. Increased scale of operation and specialization may alter the status of family farming. This statement is often made, but little evidence is available to test it.
- C. In some cases integration may induce management decisions on the part of farm operators that deviate from an economic optimum for the farmer. Some vegetable processors, for example, will contract for one crop only if grower will also grow other crops. The processor's objective is to extend his canning or freezing season. The grower might make more money if allowed to concentrate on one crop.
- D. Types of integration now developing may be less advantageous to farmers than alternative types that could be developed under cooperative leadership and public insurance and educational programs that would leave decision-making more completely in the hands of farmers.

VIII. Selected References

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